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=> s CCR2
L1        2242 CCR2

=> s l1 and review/dt
      2313632 REVIEW/DT
L2         174 L1 AND REVIEW/DT

=> d scan ti

L2    174 ANSWERS   CAPLUS  COPYRIGHT 2009 ACS on STN
TI   FROUNT, a regulator of monocytes/macrophage chemotaxis

HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):1

L2    174 ANSWERS   CAPLUS  COPYRIGHT 2009 ACS on STN
TI   The CCR2 receptor as a therapeutic target

HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):1

L2    174 ANSWERS   CAPLUS  COPYRIGHT 2009 ACS on STN
TI   Allergic diseases and chemokines

HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):1

L2    174 ANSWERS   CAPLUS  COPYRIGHT 2009 ACS on STN
TI   Novel pathways for negative regulation of inflammatory cytokines centered
     on receptor expression

HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):1

L2    174 ANSWERS   CAPLUS  COPYRIGHT 2009 ACS on STN
TI   Endogenous opiates, opioids, and immune function: Evolutionary brokerage
     of defensive behaviors

HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):100

L2    174 ANSWERS   CAPLUS  COPYRIGHT 2009 ACS on STN
TI   GluVII:06 - a highly conserved and selective anchor point for non-peptide
     ligands in chemokine receptors

L2    174 ANSWERS   CAPLUS  COPYRIGHT 2009 ACS on STN
TI   Monocyte heterogeneity and innate immunity

L2    174 ANSWERS   CAPLUS  COPYRIGHT 2009 ACS on STN
TI   Astrocytes express functional chemokine receptors

L2    174 ANSWERS   CAPLUS  COPYRIGHT 2009 ACS on STN
TI   Progress of relationship between monocyte chemotactic protein-1 and heart
     failure

L2    174 ANSWERS   CAPLUS  COPYRIGHT 2009 ACS on STN
TI   Polymorphisms in CCL2&CCL5 chemokines/chemokine receptors genes and their
     association with diseases

L2    174 ANSWERS   CAPLUS  COPYRIGHT 2009 ACS on STN
TI   The role of chemokines in atherosclerosis: Recent evidence from
     experimental models and population genetics
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L2 174 ANSWERS CAPLUS COPYRIGHT 2009 ACS on STN
TI Considering genetic profiles in functional studies of immune responsiveness to HIV-1

L2 174 ANSWERS CAPLUS COPYRIGHT 2009 ACS on STN
TI Big mac attack: does it play a direct role for monocytes/macrophages in type 1 diabetes?

L2 174 ANSWERS CAPLUS COPYRIGHT 2009 ACS on STN
TI Chemokines in vascular remodeling

L2 174 ANSWERS CAPLUS COPYRIGHT 2009 ACS on STN
TI Chemokines and autoimmune diseases

L2 174 ANSWERS CAPLUS COPYRIGHT 2009 ACS on STN
TI Analysis of G-protein-coupled receptor dimerization following chemokine signaling

L2 174 ANSWERS CAPLUS COPYRIGHT 2009 ACS on STN
TI Stroma cells facilitate growth and metastasis of breast cancer via chemokines and chemokine receptors in microenvironment

L2 174 ANSWERS CAPLUS COPYRIGHT 2009 ACS on STN
TI The role of the chemokines in cardiac disease

L2 174 ANSWERS CAPLUS COPYRIGHT 2009 ACS on STN
TI Crosstalk between chemokines and neuronal receptors bridges immune and nervous systems

L2 174 ANSWERS CAPLUS COPYRIGHT 2009 ACS on STN
TI Anti-inflammatory effect of oriental medicine viewed from chemokines

L2 174 ANSWERS CAPLUS COPYRIGHT 2009 ACS on STN
TI CCR2: from cloning to the creation of knockout mice

L2 174 ANSWERS CAPLUS COPYRIGHT 2009 ACS on STN
TI Monocyte-mediated defense against microbial pathogens

L2 174 ANSWERS CAPLUS COPYRIGHT 2009 ACS on STN
TI Transgenic modeling of transforming growth factor-β1: role of apoptosis in fibrosis and alveolar remodeling

L2 174 ANSWERS CAPLUS COPYRIGHT 2009 ACS on STN
TI Airway inflammation and cytokine expression in COPD

L2 174 ANSWERS CAPLUS COPYRIGHT 2009 ACS on STN
TI Dendritic cell biology and regulation of dendritic cell trafficking by chemokines

L2 174 ANSWERS CAPLUS COPYRIGHT 2009 ACS on STN
TI Discovery of 3-spiropiperidinyl-1-cyclopentanecarboxamides as CCR2 antagonists

L2 174 ANSWERS CAPLUS COPYRIGHT 2009 ACS on STN
TI Molecular mechanism of aortic aneurysm

L2 174 ANSWERS CAPLUS COPYRIGHT 2009 ACS on STN
TI Role of chemokines on onset and prognosis in nephritis

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L2 174 ANSWERS CAPLUS COPYRIGHT 2009 ACS on STN
TI Chemokine receptors: A brief overview

L2 174 ANSWERS CAPLUS COPYRIGHT 2009 ACS on STN
TI Chemokine receptor antagonists: part 2

L2 174 ANSWERS CAPLUS COPYRIGHT 2009 ACS on STN
TI Genetic polymorphisms in the chemokine and chemokine receptors: impact on clinical course and therapy of the human immunodeficiency virus type 1 infection (HIV-1)

L2 174 ANSWERS CAPLUS COPYRIGHT 2009 ACS on STN
TI MCP-1-CCR2 in renal fibrosis

L2 174 ANSWERS CAPLUS COPYRIGHT 2009 ACS on STN
TI Role of chemokines and their receptors in pulmonary fibrosis

L2 174 ANSWERS CAPLUS COPYRIGHT 2009 ACS on STN
TI Hyperexcitable neurons and altered non-neuronal cells in the compressed spinal ganglion

L2 174 ANSWERS CAPLUS COPYRIGHT 2009 ACS on STN
TI The role of MCP-1/CCR2 in diabetic nephropathy

L2 174 ANSWERS CAPLUS COPYRIGHT 2009 ACS on STN
TI Chemokines in renal diseases

L2 174 ANSWERS CAPLUS COPYRIGHT 2009 ACS on STN
TI The role of chemokines and chemokine receptors in progressive renal diseases

L2 174 ANSWERS CAPLUS COPYRIGHT 2009 ACS on STN
TI HIV subtypes and polymorphism of virus coreceptors

L2 174 ANSWERS CAPLUS COPYRIGHT 2009 ACS on STN
TI GRK2-Dependent Desensitization Downstream of G Proteins

L2 174 ANSWERS CAPLUS COPYRIGHT 2009 ACS on STN
TI Signal transduction of chemokine receptors

L2 174 ANSWERS CAPLUS COPYRIGHT 2009 ACS on STN
TI Significant Involvement of CCL2 (MCP-1) in Inflammatory Disorders of the Lung

L2 174 ANSWERS CAPLUS COPYRIGHT 2009 ACS on STN
TI Host genetic polymorphisms affect HIV-1 diseases

L2 174 ANSWERS CAPLUS COPYRIGHT 2009 ACS on STN
TI Chemokines and neuromodulation

L2 174 ANSWERS CAPLUS COPYRIGHT 2009 ACS on STN
TI Role of chemokines in atherosclerosis. Complementing clinical and fundamental research in the development of therapeutical strategies

L2 174 ANSWERS CAPLUS COPYRIGHT 2009 ACS on STN
TI Genetic determinants of arterial calcification associated with atherosclerosis

L2 174 ANSWERS CAPLUS COPYRIGHT 2009 ACS on STN

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TI   Role of chemokines in cardiovascular system

L2   174 ANSWERS   CAPLUS COPYRIGHT 2009 ACS on STN
TI   Monocyte chemoattractant proteins in the pathogenesis of systemic sclerosis

L2   174 ANSWERS   CAPLUS COPYRIGHT 2009 ACS on STN
TI   Chemokines and chemokine receptors in renal transplantation - from bench to bedside

L2   174 ANSWERS   CAPLUS COPYRIGHT 2009 ACS on STN
TI   Chemokines in the Pathogenesis of Vascular Disease

L2   174 ANSWERS   CAPLUS COPYRIGHT 2009 ACS on STN
TI   Millennium award recipient contribution: targeting monocyte recruitment in CNS autoimmune disease

L2   174 ANSWERS   CAPLUS COPYRIGHT 2009 ACS on STN
TI   Monocyte Chemoattractant Protein-1 (MCP-1): An Overview

L2   174 ANSWERS   CAPLUS COPYRIGHT 2009 ACS on STN
TI   The many roles of chemokine receptors in neurodegenerative disorders: emerging new therapeutical strategies

L2   174 ANSWERS   CAPLUS COPYRIGHT 2009 ACS on STN
TI   Inflammation and ARB

L2   174 ANSWERS   CAPLUS COPYRIGHT 2009 ACS on STN
TI   Monocyte chemoattractant protein-1: does it play a role in diabetic nephropathy?

L2   174 ANSWERS   CAPLUS COPYRIGHT 2009 ACS on STN
TI   MCP-1 in human disease insights gained from animal models

L2   174 ANSWERS   CAPLUS COPYRIGHT 2009 ACS on STN
TI   Chemokine receptor expression on human Th17 cells

L2   174 ANSWERS   CAPLUS COPYRIGHT 2009 ACS on STN
TI   Inflammatory changes in fat

L2   174 ANSWERS   CAPLUS COPYRIGHT 2009 ACS on STN
TI   Chemokine Receptors in Vascular Smooth Muscle

L2   174 ANSWERS   CAPLUS COPYRIGHT 2009 ACS on STN
TI   Polymorphism of human alleles associated with genetic resistance against HIV-1 infection and its implications

L2   174 ANSWERS   CAPLUS COPYRIGHT 2009 ACS on STN
TI   The roles of chemokines in the development of systemic sclerosis

L2   174 ANSWERS   CAPLUS COPYRIGHT 2009 ACS on STN
TI   Dendritic cells regulated by nucleotides and nucleosides

L2   174 ANSWERS   CAPLUS COPYRIGHT 2009 ACS on STN
TI   Biochemical mechanisms of hyperhomocysteinemia in atherosclerosis: role of chemokine expression

L2   174 ANSWERS   CAPLUS COPYRIGHT 2009 ACS on STN
TI   Inhibitors of monocyte chemoattractant protein-1/CC ligand 2 and its

receptor CCR2

L2 174 ANSWERS CAPLUS COPYRIGHT 2009 ACS on STN
TI Chemokine receptor antagonists: Part 1

L2 174 ANSWERS CAPLUS COPYRIGHT 2009 ACS on STN
TI Molecular and cellular mechanisms of retinal degeneration in macular dystrophy

L2 174 ANSWERS CAPLUS COPYRIGHT 2009 ACS on STN
TI In vivo manipulation of dendritic cell migration and activation to elicit antitumour immunity

L2 174 ANSWERS CAPLUS COPYRIGHT 2009 ACS on STN
TI HIV-1-associated dementia

L2 174 ANSWERS CAPLUS COPYRIGHT 2009 ACS on STN
TI Modulation of chemokine receptor activity through dimerization and crosstalk

L2 174 ANSWERS CAPLUS COPYRIGHT 2009 ACS on STN
TI Effect of CCL3L1 gene polymorphism on HIV susceptibility and disease progression

L2 174 ANSWERS CAPLUS COPYRIGHT 2009 ACS on STN
TI The complex role of the chemokine receptor CCR2 in collagen-induced arthritis: implications for therapeutic targeting of CCR2 in rheumatoid arthritis

L2 174 ANSWERS CAPLUS COPYRIGHT 2009 ACS on STN
TI Mouse preDC2/plasmacytoid DC producing type I interferon with the viral stimuli

L2 174 ANSWERS CAPLUS COPYRIGHT 2009 ACS on STN
TI Sequence-specific priming as a rapid screen for known mutations

L2 174 ANSWERS CAPLUS COPYRIGHT 2009 ACS on STN
TI Chemokine-directed immune cell infiltration in acute and chronic liver disease

L2 174 ANSWERS CAPLUS COPYRIGHT 2009 ACS on STN
TI Molecular basis for insulin resistance

L2 174 ANSWERS CAPLUS COPYRIGHT 2009 ACS on STN
TI Chemokine Receptor 2 (CCR2) in Atherosclerosis, Infectious Diseases, and Regulation of T-Cell Polarization

L2 174 ANSWERS CAPLUS COPYRIGHT 2009 ACS on STN
TI Chapter 17. Chemokines: targets for novel therapeutics

L2 174 ANSWERS CAPLUS COPYRIGHT 2009 ACS on STN
TI Th17 cells and autoimmune encephalomyelitis (EAE/MS)

L2 174 ANSWERS CAPLUS COPYRIGHT 2009 ACS on STN
TI The involvement of monocyte chemoattractant protein-1 in peripheral nerve injury-induced neuropathic pain

L2 174 ANSWERS CAPLUS COPYRIGHT 2009 ACS on STN
TI Therapy for chronic obstructive pulmonary disease in the 21st century

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L2 174 ANSWERS CAPLUS COPYRIGHT 2009 ACS on STN
TI Chemokine Receptors in Airway Disease: Which Receptors to Target?

L2 174 ANSWERS CAPLUS COPYRIGHT 2009 ACS on STN
TI Mechanisms of microglia accumulation in Alzheimer's disease: therapeutic implications

L2 174 ANSWERS CAPLUS COPYRIGHT 2009 ACS on STN
TI Prostate cancer bone metastasis: interaction between tumor cells and bone microenvironment

L2 174 ANSWERS CAPLUS COPYRIGHT 2009 ACS on STN
TI Chemokine and renal fibrosis

L2 174 ANSWERS CAPLUS COPYRIGHT 2009 ACS on STN
TI Utilization of combinatorial chemistry in drug development. Solid phase mix-split and solution-phase parallel syntheses

L2 174 ANSWERS CAPLUS COPYRIGHT 2009 ACS on STN
TI Tipping the balance in favor of protective immunity during influenza virus infection

L2 174 ANSWERS CAPLUS COPYRIGHT 2009 ACS on STN
TI Regulation of endothelial progenitor cell homing after arterial injury

L2 174 ANSWERS CAPLUS COPYRIGHT 2009 ACS on STN
TI Organ-specific autoimmunity and chemokine

L2 174 ANSWERS CAPLUS COPYRIGHT 2009 ACS on STN
TI The role of MCP-1 (CCL2) and CCR2 in multiple sclerosis and experimental autoimmune encephalomyelitis (EAE)

L2 174 ANSWERS CAPLUS COPYRIGHT 2009 ACS on STN
TI A new class of carbon-rich organometallics. The C3, C4 and C5 metallacumulenes Ru:(C:)nCR2

L2 174 ANSWERS CAPLUS COPYRIGHT 2009 ACS on STN
TI The relationship between monocyte chemoattractant protein-1 (MCP-1) and diabetes-associated atherosclerosis

L2 174 ANSWERS CAPLUS COPYRIGHT 2009 ACS on STN
TI Effect of monocyte chemoattractant protein-1 and its receptors on hypoxic-ischemic cerebral damage

L2 174 ANSWERS CAPLUS COPYRIGHT 2009 ACS on STN
TI Monocyte Chemoattractant Protein-1 (CCL2) in Inflammatory Disease and Adaptive Immunity: Therapeutic Opportunities and Controversies

L2 174 ANSWERS CAPLUS COPYRIGHT 2009 ACS on STN
TI Genetic factors determining resistance to HIV infection and control of AIDS progression: implications for the pathogenesis and therapeutic strategy for HIV eradication. Review

L2 174 ANSWERS CAPLUS COPYRIGHT 2009 ACS on STN
TI CCL2/MCP1: a novel target in systemic lupus erythematosus and lupus nephritis

L2 174 ANSWERS CAPLUS COPYRIGHT 2009 ACS on STN

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TI   Susceptibility gene of multiple sclerosis

L2   174 ANSWERS   CAPLUS COPYRIGHT 2009 ACS on STN
TI   Role of adhesion molecules, cytokines and chemokines in the progression of tubulo-interstitial renal injury

L2   174 ANSWERS   CAPLUS COPYRIGHT 2009 ACS on STN
TI   Host determinants in HIV infection and disease: Part 2: Genetic factors and implications for antiretroviral therapeutics

L2   174 ANSWERS   CAPLUS COPYRIGHT 2009 ACS on STN
TI   C-reactive protein, cytokines and inflammation in cardiovascular diseases

L2   174 ANSWERS   CAPLUS COPYRIGHT 2009 ACS on STN
TI   International Union of Basic and Clinical Pharmacology. LXVII. Recommendations for the recognition and nomenclature of G protein-coupled receptor heteromultimers

L2   174 ANSWERS   CAPLUS COPYRIGHT 2009 ACS on STN
TI   Dendritic cells and immunity to Listeria: TipDCs are a new recruit

L2   174 ANSWERS   CAPLUS COPYRIGHT 2009 ACS on STN
TI   Pleiotropic effects of chemokines in vascular lesion development

L2   174 ANSWERS   CAPLUS COPYRIGHT 2009 ACS on STN
TI   Recent developments in CCR2 antagonists

L2   174 ANSWERS   CAPLUS COPYRIGHT 2009 ACS on STN
TI   MCP-1 and cardiovascular diseases

L2   174 ANSWERS   CAPLUS COPYRIGHT 2009 ACS on STN
TI   Cytokine and chemokine inter-regulation in the inflamed or injured CNS

L2   174 ANSWERS   CAPLUS COPYRIGHT 2009 ACS on STN
TI   Macrophage inflammatory protein-1

HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):99

L2   174 ANSWERS   CAPLUS COPYRIGHT 2009 ACS on STN
TI   Novel pathways for negative regulation of inflammatory cytokines

L2   174 ANSWERS   CAPLUS COPYRIGHT 2009 ACS on STN
TI   Pathogenic mechanism of pollenosis and genes

L2   174 ANSWERS   CAPLUS COPYRIGHT 2009 ACS on STN
TI   Mechanisms of leukocyte chemotaxis

L2   174 ANSWERS   CAPLUS COPYRIGHT 2009 ACS on STN
TI   Improving feedstock characteristics through plant science: Modifying lignin biosynthesis to improve the fermentable carbon yield of wheat crop residues

L2   174 ANSWERS   CAPLUS COPYRIGHT 2009 ACS on STN
TI   Leukocyte recruitment during pulmonary Cryptococcus neoformans infection

L2   174 ANSWERS   CAPLUS COPYRIGHT 2009 ACS on STN
TI   Spiegelmer NOX-E36 for renal diseases

L2   174 ANSWERS   CAPLUS COPYRIGHT 2009 ACS on STN

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TI AIDS

L2 174 ANSWERS CAPLUS COPYRIGHT 2009 ACS on STN
TI HLA and cytokine genetic polymorphism in sarcoidosis

L2 174 ANSWERS CAPLUS COPYRIGHT 2009 ACS on STN
TI Involvement of chemokine receptor 2 and its ligand, monocyte chemoattractant protein-1, in the development of atherosclerosis: lessons from knockout mice

L2 174 ANSWERS CAPLUS COPYRIGHT 2009 ACS on STN
TI Innate immunity of human corneal stroma

L2 174 ANSWERS CAPLUS COPYRIGHT 2009 ACS on STN
TI Molecular mechanism of in-stent restenosis and novel treatment strategy of gene-eluting stent developed with bioabsorbable nano-particle electrodeposition

L2 174 ANSWERS CAPLUS COPYRIGHT 2009 ACS on STN
TI Human genes that limit AIDS

L2 174 ANSWERS CAPLUS COPYRIGHT 2009 ACS on STN
TI Cytokine modulators as novel therapies for asthma

L2 174 ANSWERS CAPLUS COPYRIGHT 2009 ACS on STN
TI Chemokine/chemokine receptor-mediated inflammation regulates pathologic changes from acute kidney injury to chronic kidney disease

L2 174 ANSWERS CAPLUS COPYRIGHT 2009 ACS on STN
TI Chemokine regulation of atherosclerosis

L2 174 ANSWERS CAPLUS COPYRIGHT 2009 ACS on STN
TI Chemokine receptors

L2 174 ANSWERS CAPLUS COPYRIGHT 2009 ACS on STN
TI Role of microglia and astrocytes in autoimmune inflammation in the central nervous system

L2 174 ANSWERS CAPLUS COPYRIGHT 2009 ACS on STN
TI Survival with HIV infection: good luck or good breeding?

L2 174 ANSWERS CAPLUS COPYRIGHT 2009 ACS on STN
TI Advances in the discovery of CC chemokine receptor 2 antagonists

L2 174 ANSWERS CAPLUS COPYRIGHT 2009 ACS on STN
TI Myeloid cell recruitment and function in pathogenesis and latency

L2 174 ANSWERS CAPLUS COPYRIGHT 2009 ACS on STN
TI Chemokines in islet allograft rejection

L2 174 ANSWERS CAPLUS COPYRIGHT 2009 ACS on STN
TI Signaling through receptor CCR2: role of CCR2 in atherogenesis

L2 174 ANSWERS CAPLUS COPYRIGHT 2009 ACS on STN
TI Home is where the heart is: via the FROUNT

L2 174 ANSWERS CAPLUS COPYRIGHT 2009 ACS on STN
TI Migratory fate and differentiation of blood monocyte subsets

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L2 174 ANSWERS CAPLUS COPYRIGHT 2009 ACS on STN
TI Genetic control of HIV disease

L2 174 ANSWERS CAPLUS COPYRIGHT 2009 ACS on STN
TI Studies on coreceptors and AIDS

L2 174 ANSWERS CAPLUS COPYRIGHT 2009 ACS on STN
TI Chemokines in Vascular Dysfunction and Remodeling

L2 174 ANSWERS CAPLUS COPYRIGHT 2009 ACS on STN
TI Chemokines and chemokine receptors in glomerulonephritis and renal allograft rejection

L2 174 ANSWERS CAPLUS COPYRIGHT 2009 ACS on STN
TI Research development on susceptibility loci in inflammatory bowel disease by linkage analysis

L2 174 ANSWERS CAPLUS COPYRIGHT 2009 ACS on STN
TI Sarcoidosis, immunomodulation and immune disorders

L2 174 ANSWERS CAPLUS COPYRIGHT 2009 ACS on STN
TI The immunomodulatory role of microglia in amyotrophic lateral sclerosis

L2 174 ANSWERS CAPLUS COPYRIGHT 2009 ACS on STN
TI Role of Ca^{2+} influx in tissue factor expression in monocyte adhesion to endothelial cells

L2 174 ANSWERS CAPLUS COPYRIGHT 2009 ACS on STN
TI Targeting the chemokine network in renal inflammation

L2 174 ANSWERS CAPLUS COPYRIGHT 2009 ACS on STN
TI Drug design strategies for targeting G-protein-coupled receptors

L2 174 ANSWERS CAPLUS COPYRIGHT 2009 ACS on STN
TI Chemokines and infectious diseases

L2 174 ANSWERS CAPLUS COPYRIGHT 2009 ACS on STN
TI Effects of monocyte chemoattractant protein-1 and its receptor in vascular disease induced by angiotensin II

L2 174 ANSWERS CAPLUS COPYRIGHT 2009 ACS on STN
TI Hypersensitivity pneumonitis and chemokines

L2 174 ANSWERS CAPLUS COPYRIGHT 2009 ACS on STN
TI New insights into the treatment of pulmonary fibrosis

L2 174 ANSWERS CAPLUS COPYRIGHT 2009 ACS on STN
TI Interleukin-8 and its receptor CXCR2 in atherosclerosis

L2 174 ANSWERS CAPLUS COPYRIGHT 2009 ACS on STN
TI Immunogenetic basis of HIV-1 infection, transmission and disease progression

L2 174 ANSWERS CAPLUS COPYRIGHT 2009 ACS on STN
TI Genetics of resistance to HIV infection: role of co-receptors and co-receptor ligands

L2 174 ANSWERS CAPLUS COPYRIGHT 2009 ACS on STN

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TI   Effect of genetic polymorphisms in chemokine/chemokine receptor genes on
     HIV-1 diseases

L2   174 ANSWERS   CAPLUS COPYRIGHT 2009 ACS on STN
TI   Chemokines as regulators of T cell differentiation

L2   174 ANSWERS   CAPLUS COPYRIGHT 2009 ACS on STN
TI   Allergic rhinitis

L2   174 ANSWERS   CAPLUS COPYRIGHT 2009 ACS on STN
TI   Chemokines and chemokine receptors in multiple sclerosis. Potential
     targets for new therapies

L2   174 ANSWERS   CAPLUS COPYRIGHT 2009 ACS on STN
TI   CCL2 (monocyte chemoattractant protein-1) and cancer

L2   174 ANSWERS   CAPLUS COPYRIGHT 2009 ACS on STN
TI   Genetic polymorphisms and AIDS pathogenesis

L2   174 ANSWERS   CAPLUS COPYRIGHT 2009 ACS on STN
TI   MCP-1/CCR2 knockout mice and transgenic mice

L2   174 ANSWERS   CAPLUS COPYRIGHT 2009 ACS on STN
TI   Small molecule CCR2 antagonists

L2   174 ANSWERS   CAPLUS COPYRIGHT 2009 ACS on STN
TI   Genetic and epigenetic control of plant growth and development. Genes of
     photomorphogenesis and regulation of their expression by light

L2   174 ANSWERS   CAPLUS COPYRIGHT 2009 ACS on STN
TI   Chemokines and immunomodulation: applications to HIV infection

L2   174 ANSWERS   CAPLUS COPYRIGHT 2009 ACS on STN
TI   Chemokine receptors

L2   174 ANSWERS   CAPLUS COPYRIGHT 2009 ACS on STN
TI   An Oxidized Lipid-Peroxisome Proliferator-Activated Receptor
     γ-Chemokine Pathway in the Regulation of Macrophage-Vascular Smooth
     Muscle Cell Adhesion

L2   174 ANSWERS   CAPLUS COPYRIGHT 2009 ACS on STN
TI   Inflamed fat: What starts the fire?

L2   174 ANSWERS   CAPLUS COPYRIGHT 2009 ACS on STN
TI   Chemokines and respiratory diseases

L2   174 ANSWERS   CAPLUS COPYRIGHT 2009 ACS on STN
TI   Chemokines and atherosclerosis

L2   174 ANSWERS   CAPLUS COPYRIGHT 2009 ACS on STN
TI   Feasibility and prospects for anti-inflammatory antibodies in the
     treatment and disease management of influenza

L2   174 ANSWERS   CAPLUS COPYRIGHT 2009 ACS on STN
TI   Genetic basis of HIV-1 resistance and susceptibility: an approach to
     understand correlation between human genes and HIV-1 infection

L2   174 ANSWERS   CAPLUS COPYRIGHT 2009 ACS on STN
TI   Unraveling the Chemistry of Chemokine Receptor Ligands

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L2    174 ANSWERS   CAPLUS  COPYRIGHT 2009 ACS on STN
TI   The effect of genetic variation in chemokines and their receptors on HIV
     transmission and progression to AIDS

L2    174 ANSWERS   CAPLUS  COPYRIGHT 2009 ACS on STN
TI   Investigational C-C chemokine receptor 2 antagonists for the treatment of
     autoimmune diseases

L2    174 ANSWERS   CAPLUS  COPYRIGHT 2009 ACS on STN
TI   Sarcoidosis, genetic backgrounds of Japanese patients

L2    174 ANSWERS   CAPLUS  COPYRIGHT 2009 ACS on STN
TI   Candidate genes for cedar pollinosis

L2    174 ANSWERS   CAPLUS  COPYRIGHT 2009 ACS on STN
TI   Is there a genetic basis for resistance to atherosclerosis?

L2    174 ANSWERS   CAPLUS  COPYRIGHT 2009 ACS on STN
TI   Diabetic nephropathy: new insights into the pathogenesis

L2    174 ANSWERS   CAPLUS  COPYRIGHT 2009 ACS on STN
TI   Monocyte chemoattractant protein-1 and atherosclerosis: Is there room for
     an additional biomarker?

L2    174 ANSWERS   CAPLUS  COPYRIGHT 2009 ACS on STN
TI   Cytokines and angiogenesis

L2    174 ANSWERS   CAPLUS  COPYRIGHT 2009 ACS on STN
TI   Divergent expression of inflammatory dermal chemokines in cutaneous
     leishmaniasis

L2    174 ANSWERS   CAPLUS  COPYRIGHT 2009 ACS on STN
TI   MCP-1 and CCR2 in HIV infection: regulation of agonist and
     receptor expression

ALL ANSWERS HAVE BEEN SCANNED


=> s MCP-1/CCR2 knockout mice and transgenic mice
MISSING OPERATOR

=> s MCP-1/CCR2 knockout mice and transgenic mice/ti
MISSING OPERATOR

=> s CCR2 knockout mice and transgenic mice/ti
          2242 CCR2
         32776 KNOCKOUT
          1760 KNOCKOUTS
         33695 KNOCKOUT
                 (KNOCKOUT OR KNOCKOUTS)
        521868 MICE
            27 MICES
        521873 MICE
                 (MICE OR MICES)
            19 CCR2 KNOCKOUT MICE
                 (CCR2(W)KNOCKOUT(W)MICE)
         32465 TRANSGENIC/TI
           139 TRANSGENICS/TI
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         32599 TRANSGENIC/TI
                 ((TRANSGENIC OR TRANSGENICS)/TI)
        157801 MICE/TI
             2 MICES/TI
        157803 MICE/TI
                 ((MICE OR MICES)/TI)
          9951 TRANSGENIC MICE/TI
                 ((TRANSGENIC(W)MICE)/TI)
L3           1 CCR2 KNOCKOUT MICE AND TRANSGENIC MICE/TI

=> s Inhibitors of monocyte chemoattractant ligand 2 and its     receptor CCR2/ti
        621506 INHIBITORS
         57713 MONOCYTE
         37074 MONOCYTES
         69809 MONOCYTE
                 (MONOCYTE OR MONOCYTES)
         18670 CHEMOATTRACTANT
          2301 CHEMOATTRACTANTS
         19937 CHEMOATTRACTANT
                 (CHEMOATTRACTANT OR CHEMOATTRACTANTS)
        377608 LIGAND
        257559 LIGANDS
        513172 LIGAND
                 (LIGAND OR LIGANDS)
      10287613 2
             0 INHIBITORS OF MONOCYTE CHEMOATTRACTANT LIGAND 2
                 (INHIBITORS(1W)MONOCYTE(W)CHEMOATTRACTANT(W)LIGAND(W)2)
        660718 ITS/TI
        276287 RECEPTOR/TI
        109997 RECEPTORS/TI
        380854 RECEPTOR/TI
                 ((RECEPTOR OR RECEPTORS)/TI)
           487 CCR2/TI
            13 ITS     RECEPTOR CCR2/TI
                 ((ITS(W)RECEPTOR(W)CCR2)/TI)
L4           0 INHIBITORS OF MONOCYTE CHEMOATTRACTANT LIGAND 2 AND ITS     RECE
               PTOR CCR2/TI

=> s Inhibitors of monocyte chemoattractant ligand 2 and its receptor CCR2/ti
        621506 INHIBITORS
         57713 MONOCYTE
         37074 MONOCYTES
         69809 MONOCYTE
                 (MONOCYTE OR MONOCYTES)
         18670 CHEMOATTRACTANT
          2301 CHEMOATTRACTANTS
         19937 CHEMOATTRACTANT
                 (CHEMOATTRACTANT OR CHEMOATTRACTANTS)
        377608 LIGAND
        257559 LIGANDS
        513172 LIGAND
                 (LIGAND OR LIGANDS)
      10287613 2
             0 INHIBITORS OF MONOCYTE CHEMOATTRACTANT LIGAND 2
                 (INHIBITORS(1W)MONOCYTE(W)CHEMOATTRACTANT(W)LIGAND(W)2)
        660718 ITS/TI
        276287 RECEPTOR/TI
        109997 RECEPTORS/TI
        380854 RECEPTOR/TI
```

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```
                 ((RECEPTOR OR RECEPTORS)/TI)
           487 CCR2/TI
            13 ITS RECEPTOR CCR2/TI
                 ((ITS(W)RECEPTOR(W)CCR2)/TI)
L5           0 INHIBITORS OF MONOCYTE CHEMOATTRACTANT LIGAND 2 AND ITS RECEPTOR
                CCR2/TI

=> s Inhibitors of monocyte chemoattractant ligand/ ti
MISSING OPERATOR

=> s Inhibitors of monocyte chemoattractant ligand/ti
        121600 INHIBITORS/TI
          7772 MONOCYTE/TI
          8265 MONOCYTES/TI
         15761 MONOCYTE/TI
                 ((MONOCYTE OR MONOCYTES)/TI)
          2334 CHEMOATTRACTANT/TI
           285 CHEMOATTRACTANTS/TI
          2616 CHEMOATTRACTANT/TI
                 ((CHEMOATTRACTANT OR CHEMOATTRACTANTS)/TI)
         66288 LIGAND/TI
         60953 LIGANDS/TI
        125384 LIGAND/TI
                 ((LIGAND OR LIGANDS)/TI)
L6           0 INHIBITORS OF MONOCYTE CHEMOATTRACTANT LIGAND/TI
                 ((INHIBITORS(1W)MONOCYTE(W)CHEMOATTRACTANT(W)LIGAND)/TI)

=> s  monocyte chemoattractant ligand/ti
          7772 MONOCYTE/TI
          8265 MONOCYTES/TI
         15761 MONOCYTE/TI
                 ((MONOCYTE OR MONOCYTES)/TI)
          2334 CHEMOATTRACTANT/TI
           285 CHEMOATTRACTANTS/TI
          2616 CHEMOATTRACTANT/TI
                 ((CHEMOATTRACTANT OR CHEMOATTRACTANTS)/TI)
         66288 LIGAND/TI
         60953 LIGANDS/TI
        125384 LIGAND/TI
                 ((LIGAND OR LIGANDS)/TI)
L7           0 MONOCYTE CHEMOATTRACTANT LIGAND/TI
                 ((MONOCYTE(W)CHEMOATTRACTANT(W)LIGAND)/TI)

=> s Inhibitors of monocyte chemoattractant/ti
        121600 INHIBITORS/TI
          7772 MONOCYTE/TI
          8265 MONOCYTES/TI
         15761 MONOCYTE/TI
                 ((MONOCYTE OR MONOCYTES)/TI)
          2334 CHEMOATTRACTANT/TI
           285 CHEMOATTRACTANTS/TI
          2616 CHEMOATTRACTANT/TI
                 ((CHEMOATTRACTANT OR CHEMOATTRACTANTS)/TI)
L8           2 INHIBITORS OF MONOCYTE CHEMOATTRACTANT/TI
                 ((INHIBITORS(1W)MONOCYTE(W)CHEMOATTRACTANT)/TI)

=> s MCP-1 in human disease insights gained from animal models/ti
          2016 MCP/TI
            19 MCPS/TI
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Print selected from 10528293.trn


          2035 MCP/TI
                 ((MCP OR MCPS)/TI)
        981957 1/TI
        588625 HUMAN/TI
         26510 HUMANS/TI
        614708 HUMAN/TI
                 ((HUMAN OR HUMANS)/TI)
        154762 DISEASE/TI
         60779 DISEASES/TI
        214593 DISEASE/TI
                 ((DISEASE OR DISEASES)/TI)
         14565 INSIGHTS/TI
           562 GAINED/TI
         55503 ANIMAL/TI
         36621 ANIMALS/TI
         91712 ANIMAL/TI
                 ((ANIMAL OR ANIMALS)/TI)
         88281 MODELS/TI
L9           1 MCP-1 IN HUMAN DISEASE INSIGHTS GAINED FROM ANIMAL MODELS/TI
                 ((MCP(W)1(1W)HUMAN(W)DISEASE(W)INSIGHTS(W)GAINED(1W)ANIMAL(W)M
                 ODELS)/TI)

=> s The CCR2 receptor as a therapeutic target/ti
           487 CCR2/TI
        276287 RECEPTOR/TI
        109997 RECEPTORS/TI
        380854 RECEPTOR/TI
                 ((RECEPTOR OR RECEPTORS)/TI)
       4025933 A/TI
         55914 THERAPEUTIC/TI
          6121 THERAPEUTICS/TI
         62009 THERAPEUTIC/TI
                 ((THERAPEUTIC OR THERAPEUTICS)/TI)
         46651 TARGET/TI
         24127 TARGETS/TI
         70575 TARGET/TI
                 ((TARGET OR TARGETS)/TI)
L10          1 THE CCR2 RECEPTOR AS A THERAPEUTIC TARGET/TI
                 ((CCR2(W)RECEPTOR(1W)A(W)THERAPEUTIC(W)TARGET)/TI)

=> d his

     (FILE 'HOME' ENTERED AT 17:37:00 ON 11 NOV 2009)

     FILE 'CAPLUS' ENTERED AT 17:37:25 ON 11 NOV 2009
L1        2242 S CCR2
L2         174 S L1 AND REVIEW/DT
L3           1 S CCR2 KNOCKOUT MICE AND TRANSGENIC MICE/TI
L4           0 S INHIBITORS OF MONOCYTE CHEMOATTRACTANT LIGAND 2 AND ITS     R
L5           0 S INHIBITORS OF MONOCYTE CHEMOATTRACTANT LIGAND 2 AND ITS RECEP
L6           0 S INHIBITORS OF MONOCYTE CHEMOATTRACTANT LIGAND/TI
L7           0 S  MONOCYTE CHEMOATTRACTANT LIGAND/TI
L8           2 S INHIBITORS OF MONOCYTE CHEMOATTRACTANT/TI
L9           1 S MCP-1 IN HUMAN DISEASE INSIGHTS GAINED FROM ANIMAL MODELS/TI
L10          1 S THE CCR2 RECEPTOR AS A THERAPEUTIC TARGET/TI

=> s l3 or l4 or l5 or l6 or l7 or l8 or l9 or l10
L11          5 L3 OR L4 OR L5 OR L6 OR L7 OR L8 OR L9 OR L10
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Print selected from 10528293.trn

=> d cbib abs 1-
YOU HAVE REQUESTED DATA FROM 5 ANSWERS - CONTINUE? Y/(N):y

L11 ANSWER 1 OF 5 CAPLUS COPYRIGHT 2009 ACS on STN
2009:291562 Document No. 151:6314 MCP-1/CCR2 knockout mice and transgenic mice. Tamori, Yoshikazu (Grad. Sch. of Medicine, Kobe Univ., Kobe, Japan). Lipid, 20(1), 4-8 (Japanese) 2009. CODEN: LIPDET. ISSN: 0915-6607. Publisher: Medikaru Rebyusha.

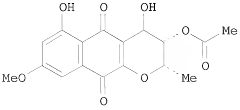
AB A review discusses role of MCP-1 and CCR2 in pathogenesis of obesity, diabetes, and atherosclerosis using MCP-1/CCR2 transgenic or knockout mouse model.

L11 ANSWER 2 OF 5 CAPLUS COPYRIGHT 2009 ACS on STN
2005:1345107 Document No. 144:225361 The CCR2 receptor as a therapeutic target. Feria, Manuel; Diaz-Gonzalez, Federico (Rheumatology Service, Hospital Universitario de Canarias, S/C de Tenerife, Spain). Expert Opinion on Therapeutic Patents, 16(1), 49-57 (English) 2006. CODEN: EOTPEG. ISSN: 1354-3776. Publisher: Ashley Publications Ltd..

AB A review. The strict control of cell recruitment during the physiol. inflammatory response fails in autoimmune inflammatory diseases. The chemokine system is a complex and redundant network of small soluble proteins and G-protein-coupled cell surface receptors that participate in the inflammatory response, mainly attracting cells to the inflammatory foci. Data inferred from animal models suggest that the chemokine system might be involved in the physiopathol. of several human disorders. CCR2, a chemokine receptor widely expressed in hematopoietic and non-hematopoietic cells, has been functionally implicated in exptl. models of rheumatoid arthritis, multiple sclerosis and atherosclerosis amongst others, which has prompted several pharmaceutical companies to develop and patent a number of compds. with anti-CCR2 activity. This review will consider disorders where CCR2 signaling has shown a relevant function in animal models for which correlative data exist in humans, as well as patents of synthetic and biol. products with anti-CCR2 activity potentially useful in human pathol.

L11 ANSWER 3 OF 5 CAPLUS COPYRIGHT 2009 ACS on STN
2002:640666 Document No. 137:153932 Natural tricyclic products as inhibitors of monocyte chemoattractant protein 1. Elson, Steve W.; Diez Monedero, Emilio; Sanchez-Puelles, Jose Maria; Valmaseda Jadu, Manuel; Hueso Rodriguez, Juan Antonio; De la Fuente Carralero, Jesus; Macarron Larumbe, Ricardo; Vazquez Muniz, Maria Jesus (SmithKline Beecham S.A., Spain). Span. ES 2162545 A1 20011216, 15 pp. (Spanish). CODEN: SPXXAD. APPLICATION: ES 1999-101 19990120.

GI



I

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AB The invention describes a new compound (I) and its use as an inhibitor of the binding of monocyte chemoattractant protein 1 and its receptors. It also describes the use of known compds., such as gunacin and saponified gunacin as inhibitors of the binding of monocyte chemoattractant protein 1 and its receptors. The compds. are produced by fermentation of the fungus Scytalidium flavo-brunneum. The compds. are useful in the treatment of atherosclerosis and other illnesses in which the overstimulation of infiltration by monocytes and tissue damage by macrophages are implicated.

L11 ANSWER 4 OF 5 CAPLUS COPYRIGHT 2009 ACS on STN
2001:506438 Document No. 135:282560 Inhibitors of monocyte chemoattractant protein-1/CC ligand 2 and its receptor CCR2. Howard, O. M. Zack; Yoshimura, Teizo (Laboratory of Molecular Immunoregulation, Center for Cancer Research, National Cancer Institute-Frederick, Frederick, MD, 21702-1201, USA). Expert Opinion on Therapeutic Patents, 11(7), 1147-1151 (English) 2001. CODEN: EOTPEG. ISSN: 1354-3776. Publisher: Ashley Publications Ltd..
AB A review with refs. Chemoattractant cytokines (chemokines) have been shown to be pro-inflammatory and are thus likely targets for therapeutic intervention. An agent that interferes with directed migration of leukocytes to an inflammatory site is potentially a candidate anti-inflammatory drug. A specific chemokine, monocyte chemoattractant protein (MCP)-1 or CC ligand 2 (CCL2), and its receptor, CC-chemokine receptor 2 (CCR2), have been implicated in both acute and chronic inflammatory and autoimmune diseases associated with infiltration of monocytes, macrophages, dendritic cells, NK cells, basophils and memory T-cells. Genetic modification of CCL2 and CCR2 in murine models has demonstrated the potential for antagonists to prevent atherogenic vascular disease and autoimmune inflammatory diseases. Modified CCL2 peptides, which still bind but no longer activate CCR2, demonstrated the therapeutic potential of CCL2 inhibitors in animal models of arthritis. Several classes of small mol. weight CCL2 inhibitors have also been shown to inhibit chemotaxis in response to CCL2 in vitro and in animal models. However, more work is needed to establish the clin. efficacy of these CCL2 inhibitors.

L11 ANSWER 5 OF 5 CAPLUS COPYRIGHT 2009 ACS on STN
1999:520441 Document No. 132:48615 MCP-1 in human disease insights gained from animal models. Boring, Landin; Charo, Israel F.; Rollins, Barrett J. (The Gladstone Institute of Cardiovascular Disease and the Cardiovascular, University of California, San Francisco, CA, USA). Chemokines in Disease, 53-65. Editor(s): Hebert, Caroline A. Humana: Totowa, N. J. (English) 1999. CODEN: 67ZKA8.
AB A review with 53 refs. Topics discussed include kidney disease, delayed-type hypersensitivity reactions, rheumatoid arthritis, autoimmune encephalomyelitis, granulomatous lung disease, effects of overexpression of MCP-1, effects of targeted disruption of MCP-1 expression, and effects of disruption of CCR2.

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 NEWS  3  AUG 18  COMPENDEX indexing changed for the Corporate Source
                  (CS) field
 NEWS  4  AUG 24  ENCOMPLIT/ENCOMPLIT2 reloaded and enhanced
 NEWS  5  AUG 24  CA/CAplus enhanced with legal status information for
                  U.S. patents
 NEWS  6  SEP 09  50 Millionth Unique Chemical Substance Recorded in
                  CAS REGISTRY
 NEWS  7  SEP 11  WPIDS, WPINDEX, and WPIX now include Japanese FTERM
                  thesaurus
 NEWS  8  OCT 21  Derwent World Patents Index Coverage of Indian and
                  Taiwanese Content Expanded
 NEWS  9  OCT 21  Derwent World Patents Index enhanced with human
                  translated claims for Chinese Applications and
                  Utility Models
 NEWS 10  OCT 27  Free display of legal status information in CA/CAplus,
                  USPATFULL, and USPAT2 in the month of November.

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=> s ccr2
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=> file caplus
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     (FILE 'HOME' ENTERED AT 19:26:59 ON 11 NOV 2009)

     FILE 'CAPLUS' ENTERED AT 19:27:24 ON 11 NOV 2009

=> s ccr2
L1        2242 CCR2

=> s l1 and signaling
        244514 SIGNALING
           312 SIGNALINGS
        244608 SIGNALING
                 (SIGNALING OR SIGNALINGS)
L2         287 L1 AND SIGNALING

=> s l2 and complex
```

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Print selected from 10528293.trn


       1520906 COMPLEX
        821997 COMPLEXES
       1846658 COMPLEX
                 (COMPLEX OR COMPLEXES)
L3          33 L2 AND COMPLEX

=> d scan ti

L3    33 ANSWERS   CAPLUS  COPYRIGHT 2009 ACS on STN
TI    Therapeutic and carrier molecules

HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):1

L3    33 ANSWERS   CAPLUS  COPYRIGHT 2009 ACS on STN
TI    An engineered monomer of CCL2 has anti-inflammatory properties emphasizing
      the importance of oligomerization for chemokine activity in vivo

HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):1

L3    33 ANSWERS   CAPLUS  COPYRIGHT 2009 ACS on STN
TI    CC chemokine ligand 2 and its receptor regulate mucosal production of
      IL-12 and TGF-β in high dose oral tolerance

HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):1

L3    33 ANSWERS   CAPLUS  COPYRIGHT 2009 ACS on STN
TI    Detection of gene expression by specific cell types in mixed samples or
      tissues such as mouse thymus cortex or medullary stromal cells using DGEM
      (differential gene expression mapping)

HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):1

L3    33 ANSWERS   CAPLUS  COPYRIGHT 2009 ACS on STN
TI    STAT3 activation, chemokine receptor expression, and cyclin-Cdk function
      in B-1 cells

HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):1

L3    33 ANSWERS   CAPLUS  COPYRIGHT 2009 ACS on STN
TI    Diagnosis of peripheral neuropathies by gene expression profiling

HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):1

L3    33 ANSWERS   CAPLUS  COPYRIGHT 2009 ACS on STN
TI    The chemokine monocyte chemotactic protein 1 triggers Janus kinase 2
      activation and tyrosine phosphorylation of the CCR2B receptor

HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):1

L3    33 ANSWERS   CAPLUS  COPYRIGHT 2009 ACS on STN
TI    Molecular profiling of early stage liver fibrosis in patients with chronic
      hepatitis C virus infection

HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):1

L3    33 ANSWERS   CAPLUS  COPYRIGHT 2009 ACS on STN
TI    Timely interaction between prostaglandin and chemokine signaling
      is a prerequisite for successful fertilization
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HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):1

L3   33 ANSWERS   CAPLUS COPYRIGHT 2009 ACS on STN
TI   Chemokine receptor homo- or heterodimerization activates distinct signaling pathways

HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):1

L3   33 ANSWERS   CAPLUS COPYRIGHT 2009 ACS on STN
TI   Inhibition of toll-like receptor-7 (TLR-7) or TLR-7 plus TLR-9 attenuates glomerulonephritis and lung injury in experimental lupus

HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):1

L3   33 ANSWERS   CAPLUS COPYRIGHT 2009 ACS on STN
TI   Characterization of how the CC chemokine, MCP-1, binds and activates its receptor CCR2.

HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):1

L3   33 ANSWERS   CAPLUS COPYRIGHT 2009 ACS on STN
TI   Heterodimerization of CCR2 Chemokines and Regulation by Glycosaminoglycan Binding

HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):1

L3   33 ANSWERS   CAPLUS COPYRIGHT 2009 ACS on STN
TI   Interplay of CCR2 signaling and local shear force determines vein graft neointimal hyperplasia in vivo

HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):1

L3   33 ANSWERS   CAPLUS COPYRIGHT 2009 ACS on STN
TI   Genes showing altered levels of expression in response to inhibitors of cyclin-dependent kinases and their use in screening for novel inhibitors

HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):1

L3   33 ANSWERS   CAPLUS COPYRIGHT 2009 ACS on STN
TI   Truncated recombinant G-protein coupled receptors for use in cell imaging

HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):1

L3   33 ANSWERS   CAPLUS COPYRIGHT 2009 ACS on STN
TI   Novel NEMO/IκB kinase and NF-κB target genes at the pre-B to immature B cell transition

HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):1

L3   33 ANSWERS   CAPLUS COPYRIGHT 2009 ACS on STN
TI   Importance of phosphoinositide 3-kinase γ in the host defense against pneumococcal infection

HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):1

L3   33 ANSWERS   CAPLUS COPYRIGHT 2009 ACS on STN
TI   Gene probes used for genetic profiling in healthcare screening and planning

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HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):1

L3   33 ANSWERS   CAPLUS COPYRIGHT 2009 ACS on STN
TI   The CCR2 receptor as a therapeutic target

HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):1

L3   33 ANSWERS   CAPLUS COPYRIGHT 2009 ACS on STN
TI   Major histocompatibility complex (MHC) multimers specific for antigenic peptides from pathogens (such as Borrelia), their compositions, production and use in immunization, diagnosis and in detection of specific T cells

HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):1

L3   33 ANSWERS   CAPLUS COPYRIGHT 2009 ACS on STN
TI   Differential Expression of Chemokines and Chemokine Receptors in Murine Islet Allografts: The Role of CCR2 and CCR5 Signaling Pathways

HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):1

L3   33 ANSWERS   CAPLUS COPYRIGHT 2009 ACS on STN
TI   Gene expression profiling in monocytes in the diagnosis and prognosis of intracerebral hemorrhage

HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):1

L3   33 ANSWERS   CAPLUS COPYRIGHT 2009 ACS on STN
TI   Monocyte chemoattractant protein 1 causes differential signaling mediated by proline-rich tyrosine kinase 2 in THP-1 cells

HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):1

L3   33 ANSWERS   CAPLUS COPYRIGHT 2009 ACS on STN
TI   Cancer serum markers identified for use in hybridization- and amplification-based diagnosis of early stage human breast cancer

HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):1

L3   33 ANSWERS   CAPLUS COPYRIGHT 2009 ACS on STN
TI   Gene probes used for genetic profiling in healthcare screening and planning

HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):1

L3   33 ANSWERS   CAPLUS COPYRIGHT 2009 ACS on STN
TI   Involvement of CCR5 Signaling in Macrophage Recruitment to Porcine Islet Xenografts

HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):1

L3   33 ANSWERS   CAPLUS COPYRIGHT 2009 ACS on STN
TI   Modulation of chemokine receptor activity through dimerization and crosstalk

HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):1

L3   33 ANSWERS   CAPLUS COPYRIGHT 2009 ACS on STN

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```
TI   Antibody-mediated delivery of antigen to chemokine receptors on
     antigen-presenting cells results in enhanced CD4+ T cell responses

HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):1

L3    33 ANSWERS   CAPLUS  COPYRIGHT 2009 ACS on STN
TI   Gene expression profiling in the diagnosis and prognosis of MAGE-positive
     cancers and in the selection of immunotherapy

HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):1

L3    33 ANSWERS   CAPLUS  COPYRIGHT 2009 ACS on STN
TI   Methods of determining individual hypersensitivity to a pharmaceutical
     agent from gene expression profile

HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):1

L3    33 ANSWERS   CAPLUS  COPYRIGHT 2009 ACS on STN
TI   Early diagnosis of transplant rejection by analysis of gene expression
     profiles

HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):1

L3    33 ANSWERS   CAPLUS  COPYRIGHT 2009 ACS on STN
TI   Role of the first extracellular loop in the functional activation of
     CCR2. The first extracellular loop contains distinct domains
     necessary for both agonist binding and transmembrane signaling

ALL ANSWERS HAVE BEEN SCANNED


=> s  Characterization of how the CC chemokine, MCP-1, binds and activates/ti
         732478 CHARACTERIZATION
          13269 CHARACTERIZATIONS
         742311 CHARACTERIZATION
                  (CHARACTERIZATION OR CHARACTERIZATIONS)
         287718 HOW
             62 HOWS
         287773 HOW
                  (HOW OR HOWS)
         216867 CC
           2070 CCS
         218699 CC
                  (CC OR CCS)
          34680 CHEMOKINE
          27739 CHEMOKINES
          43655 CHEMOKINE
                  (CHEMOKINE OR CHEMOKINES)
          14097 MCP
            601 MCPS
          14355 MCP
                  (MCP OR MCPS)
       10398755 1
         107968 BINDS
              1 CHARACTERIZATION OF HOW THE CC CHEMOKINE, MCP-1, BINDS
                  (CHARACTERIZATION(1W)HOW(1W)CC(W)CHEMOKINE(W)MCP(W)1(W)BINDS)
           7687 ACTIVATES/TI
L4            1 CHARACTERIZATION OF HOW THE CC CHEMOKINE, MCP-1, BINDS AND ACTIV
                ATES/TI
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Print selected from 10528293.trn

```
=> s Chemokine receptor homo- or heterodimerization activates distinct
signaling pathways/ti
         34680 CHEMOKINE
         27739 CHEMOKINES
         43655 CHEMOKINE
                 (CHEMOKINE OR CHEMOKINES)
        831712 RECEPTOR
        766616 RECEPTORS
        997952 RECEPTOR
                 (RECEPTOR OR RECEPTORS)
         45136 HOMO
           445 HOMOS
         45311 HOMO
                 (HOMO OR HOMOS)
             4 CHEMOKINE RECEPTOR HOMO-
                 (CHEMOKINE(W)RECEPTOR(W)HOMO)
           402 HETERODIMERIZATION/TI
             2 HETERODIMERIZATIONS/TI
           404 HETERODIMERIZATION/TI
                 ((HETERODIMERIZATION OR HETERODIMERIZATIONS)/TI)
          7687 ACTIVATES/TI
         21664 DISTINCT/TI
         52732 SIGNALING/TI
            50 SIGNALINGS/TI
         52782 SIGNALING/TI
                 ((SIGNALING OR SIGNALINGS)/TI)
         35115 PATHWAYS/TI
             1 HETERODIMERIZATION ACTIVATES DISTINCT     SIGNALING PATHWAYS/TI
                 ((HETERODIMERIZATION(W)ACTIVATES(W)DISTINCT(W)SIGNALING(W)PATH
                 WAYS)/TI)
L5           4 CHEMOKINE RECEPTOR HOMO- OR HETERODIMERIZATION ACTIVATES DISTINC
               T     SIGNALING PATHWAYS/TI

=> s  The chemokine monocyte chemotactic protein 1 triggers Janus kinase 2
activation and tyrosine phosphorylation of the CCR2B receptor/ti
         34680 CHEMOKINE
         27739 CHEMOKINES
         43655 CHEMOKINE
                 (CHEMOKINE OR CHEMOKINES)
         57713 MONOCYTE
         37074 MONOCYTES
         69809 MONOCYTE
                 (MONOCYTE OR MONOCYTES)
         17134 CHEMOTACTIC
             9 CHEMOTACTICS
         17135 CHEMOTACTIC
                 (CHEMOTACTIC OR CHEMOTACTICS)
       2381015 PROTEIN
       1685064 PROTEINS
       2786922 PROTEIN
                 (PROTEIN OR PROTEINS)
      10398755 1
         21541 TRIGGERS
          4914 JANUS
        364603 KINASE
         67175 KINASES
        375671 KINASE
                 (KINASE OR KINASES)
```

Print selected from 10528293.trn

```
       10287613 2
         934762 ACTIVATION
           3055 ACTIVATIONS
         935856 ACTIVATION
                  (ACTIVATION OR ACTIVATIONS)
              1 THE CHEMOKINE MONOCYTE CHEMOTACTIC PROTEIN 1 TRIGGERS JANUS KINA
                SE 2     ACTIVATION
                  (CHEMOKINE(W)MONOCYTE(W)CHEMOTACTIC(W)PROTEIN(W)1(W)TRIGGERS(W
                  )JANUS(W)KINASE(W)2(W)ACTIVATION)
          36878 TYROSINE/TI
            319 TYROSINES/TI
          37163 TYROSINE/TI
                  ((TYROSINE OR TYROSINES)/TI)
          41871 PHOSPHORYLATION/TI
            261 PHOSPHORYLATIONS/TI
          42124 PHOSPHORYLATION/TI
                  ((PHOSPHORYLATION OR PHOSPHORYLATIONS)/TI)
             58 CCR2B/TI
         276287 RECEPTOR/TI
         109997 RECEPTORS/TI
         380854 RECEPTOR/TI
                  ((RECEPTOR OR RECEPTORS)/TI)
              1 TYROSINE PHOSPHORYLATION OF THE CCR2B RECEPTOR/TI
                  ((TYROSINE(W)PHOSPHORYLATION(2W)CCR2B(W)RECEPTOR)/TI)
L6            1 THE CHEMOKINE MONOCYTE CHEMOTACTIC PROTEIN 1 TRIGGERS JANUS KINA
                SE 2     ACTIVATION AND TYROSINE PHOSPHORYLATION OF THE CCR2B
                RECEPTOR/TI

=> d his

     (FILE 'HOME' ENTERED AT 19:26:59 ON 11 NOV 2009)

     FILE 'CAPLUS' ENTERED AT 19:27:24 ON 11 NOV 2009
L1         2242 S CCR2
L2          287 S L1 AND SIGNALING
L3           33 S L2 AND COMPLEX
L4            1 S  CHARACTERIZATION OF HOW THE CC CHEMOKINE, MCP-1, BINDS AND A
L5            4 S CHEMOKINE RECEPTOR HOMO- OR HETERODIMERIZATION ACTIVATES DIST
L6            1 S  THE CHEMOKINE MONOCYTE CHEMOTACTIC PROTEIN 1 TRIGGERS JANUS

=> s l4 or l5 or l6
L7            6 L4 OR L5 OR L6

=> d cbib abs 1-
YOU HAVE REQUESTED DATA FROM 6 ANSWERS - CONTINUE? Y/(N):y

L7   ANSWER 1 OF 6  CAPLUS  COPYRIGHT 2009 ACS on STN
2009:938422  Multiple approaches to the study of chemokine
     receptor homo- and heterodimerization.  Rodriguez-Frade,
     Jose Miguel; Munoz, Laura Martinez; Mellado, Mario (Department of
     Immunology and Oncology, Centro Nacional de Biotecnologia/CSIC, Madrid,
     Spain).  Methods in Enzymology, 461(Chemokines, Part B), 105-122 (English)
     2009.  CODEN: MENZAU.  ISSN: 0076-6879.  Publisher: Elsevier Inc..
AB   Chemokines belong to a family of structurally related chemoattractant
     proteins that bind to specific seven-transmembrane receptors linked to G
     proteins.  They are implicated in a variety of biol. responses ranging
     from cell polarization, movement, immune and inflammatory responses, as
     well as prevention of HIV-1 infection and cancer metastasis.  Recent
     evidence indicates that chemokine receptors can adopt several
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conformations at the cell membrane. Chemokine receptor homo- and heterodimers preexist on the cell surface, even in the absence of ligands. Chemokine binding stabilizes specific receptor conformations and activates distinct signaling cascades. Anal. of the conformations adopted by the receptors at the membrane and their dynamics is crucial for a complete understanding of the function of these inflammatory mediators. We focus here on conventional biochem. and genetic methods, as well as on new imaging techniques such as those based on resonance energy transfer, discussing their advantages, disadvantages, and possible complementarity in the anal. of chemokine receptor dimerization.

L7 ANSWER 2 OF 6 CAPLUS
2006:441863 Document No. 144:460964 Allosteric modulation of binding properties between units of chemokine receptor homo- and hetero-oligomers. Springael, Jean-Yves; Le Minh, Phu Nguyen; Urizar, Eneko; Costagliola, Sabine; Vassart, Gilbert; Parmentier, Marc (Institut de Recherche Interdisciplinaire en Biologie Humaine et Moleculaire, Universite Libre de Bruxelles, Brussels, Belg.). Molecular Pharmacology, 69(5), 1652-1661 (English) 2006. CODEN: MOPMA3. ISSN: 0026-895X. Publisher: American Society for Pharmacology and Experimental Therapeutics.

AB We have demonstrated previously that the chemokine receptors CCR2 and CCR5 form homo- and heterodimers and that dimers can only bind a single chemokine mol. with high affinity. We provide here evidence from bioluminescence resonance energy transfer expts. that stimulation by chemokines does not influence the CCR2/CCR5 heterodimerization status. In addition, we show that the rate of radioligand dissociation from one unit of the heterodimer in "infinite" tracer dilution conditions is strongly increased in the presence of an unlabeled chemokine ligand of the other unit. These results demonstrate unambiguously that the interaction between heterodimer units is of allosteric nature. Agonists, but also some monoclonal antibodies, could promote such neg. binding cooperativity, indicating that this phenomenon does not require the full conformational change associated with receptor activation. Finally, we show that G protein coupling is required for high-affinity binding of macrophage inflammatory protein-1β (CCL4) to CCR5 and that the dissociation from G proteins, after incubation with Gpp(NH)p, promotes the release of prebound radiolabeled chemokines with kinetics similar to those measured after the addition of an excess of unlabeled chemokines. These observations suggest that the association with G proteins probably participates in the neg. cooperativity observed between receptor monomers. We propose that neg. cooperativity within homo- and heterodimers of chemokine receptors and probably other G protein-coupled receptors will probably have major implications in their pharmacol. in vivo and in the physiopathol. of the diseases with which they are associated

L7 ANSWER 3 OF 6 CAPLUS
2005:223886 Document No. 142:443446 Bioluminescence Resonance Energy Transfer Reveals Ligand-induced Conformational Changes in CXCR4 Homo- and Heterodimers. Percherancier, Yann; Berchiche, Yamina A.; Slight, Isabelle; Volkmer-Engert, Rudolf; Tamamura, Hirokazu; Fujii, Nobutaka; Bouvier, Michel; Heveker, Nikolaus (Department of Biochemistry, Universite de Montreal, Montreal, QC, H3T 1C5, Can.). Journal of Biological Chemistry, 280(11), 9895-9903 (English) 2005. CODEN: JBCHA3. ISSN: 0021-9258. Publisher: American Society for Biochemistry and Molecular Biology.

AB Homo- and heterodimerization have emerged as prominent features of

G-protein-coupled receptors with possible impact on the regulation of their activity. Using a sensitive bioluminescence resonance energy transfer system, we investigated the formation of CXCR4 and CCR2 chemokine receptor dimers. We found that both receptors exist as constitutive homo- and heterodimers and that ligands induce conformational changes within the pre-formed dimers without promoting receptor dimer formation or disassembly. Ligands with different intrinsic efficacies yielded distinct bioluminescence resonance energy transfer modulations, indicating the stabilization of distinct receptor conformations. We also found that peptides derived from the transmembrane domains of CXCR4 inhibited activation of this receptor by blocking the ligand-induced conformational transitions of the dimer. Taken together, our data support a model in which chemokine receptor homo- and heterodimers form spontaneously and respond to ligand binding as units that undergo conformational changes involving both protomers even when only one of the two ligand binding sites is occupied.

L7 ANSWER 4 OF 6 CAPLUS COPYRIGHT 2009 ACS on STN
2001:413397 Document No. 135:179474 Chemokine receptor homo- or heterodimerization activates distinct signaling pathways. Mellado, Mario; Rodriguez-Frade, Jose Miguel; Vila-Coro, Antonio J.; Fernandez, Silvia; Martin de Ana, Ana; Jones, David R.; Toran, Jose L.; Martinez-A, Carlos (Department of Immunology and Oncology, Centro Nacional de Biotecnologia/CSIC, Universidad Autonoma de Madrid, Madrid, E-28049, Spain). EMBO Journal, 20(10), 2497-2507 (English) 2001. CODEN: EMJODG. ISSN: 0261-4189. Publisher: Oxford University Press.

AB Chemokine receptors of both the CC and CXC families have been demonstrated to undergo a ligand-mediated homodimerization process required for Ca^{2+} flux and chemotaxis. The authors show that, in the chemokine response, heterodimerization is also permitted between given receptor pairs, specifically between CCR2 and CCR5. This has functional consequences, as the CCR2 and CCR5 ligands monocyte chemotactic protein-1 (MCP-1) and RANTES (regulated upon activation, normal T cell-expressed and secreted) cooperate to trigger calcium responses at concns. 10- to 100-fold lower than the threshold for either chemokine alone. Heterodimerization results in recruitment of each receptor-associated signaling complex, but also recruits dissimilar signaling pathways such as Gq/11 association, and delays activation of phosphatidylinositol 3-kinase. The consequences are a pertussis toxin-resistant Ca^{2+} flux and triggering of cell adhesion rather than chemotaxis. These results show the effect of heterodimer formation on increasing the sensitivity and dynamic range of the chemokine response, and may aid in understanding the dynamics of leukocytes at limiting chemokine concns. in vivo.

L7 ANSWER 5 OF 6 CAPLUS COPYRIGHT 2009 ACS on STN
2000:331950 Characterization of how the CC chemokine, MCP-1, binds and activates its receptor CCR2.. Handel, Tracy; Pease, Joseph; Grunberger, Dorit; Sohl, Julie; Paavola, Chad; Hemmerich, Stefan; Mizoue, Laura; Jarnagin, Kurt (MCB, U of CA, Berkeley, CA, 94720, USA). Book of Abstracts, 219th ACS National Meeting, San Francisco, CA, March 26-30, 2000, MEDI-337. American Chemical Society: Washington, D. C. (English) 2000. CODEN: 69CLAC.

AB The CC chemokine, MCP-1, has been identified as a major chemoattractant for T-cells and monocytes, and plays a significant role in the pathol. of inflammatory diseases. To understand how MCP-1 binds and signals through CCR2 we have used a combination of NMR and mutagenesis. Although MCP-1 is a dimer in solution, we demonstrated that it binds its receptor as a monomer.

The receptor binding surface consists of two largely basic patches separated by a hydrophobic groove where the receptor N-terminus binds. The receptor N-terminus features a canonical tyrosine sulfation site which is important for the interaction, probably with one of the basic patches, and indeed, appears to be sulfated. They key signaling residues involve the N-terminus and Y13. Mutations of these residues yield proteins which efficiently bind CCR2 but are unable to stimulate some of the signaling pathways required for chemotaxis. With all the information gained from structural, mutagenesis and other biophys. studies, we propose a low resolution model of the MCP-1:CCR2 complex which can be used to guide further expts.

L7 ANSWER 6 OF 6 CAPLUS
1998:455792 Document No. 129:188199 Original Reference No. 129:38229a,38232a
The chemokine monocyte chemotactic protein 1 triggers Janus kinase 2 activation and tyrosine phosphorylation of the CCR2B receptor.
Mellado, M.; Rodriguez-Frade, J. M.; Aragay, A.; del Real, G.; Martin, A. M.; Vila-Coro, A. J.; Serrano, A.; Mayor, F., Jr.; Martinez-A., C. (Department of Immunology and Oncology, Centro Nacional de Biotechnologia, Madrid, Spain). Journal of Immunology, 161(2), 805-813 (English) 1998. CODEN: JOIMA3. ISSN: 0022-1767. Publisher: American Association of Immunologists.

AB The chemokines are a growing family of low m.w., 70- to 80-residue proinflammatory cytokines that operate by interacting with G protein-coupled receptors. Chemokines are involved in cell migration and in the activation of specific leukocyte subsets. Using the Mono Mac 1 monocytic cell line, we show that monocyte chemotactic protein 1 (MCP-1) triggers activation of the Janus kinase 2 (JAK2)/STAT3 pathway and CCR2 receptor tyrosine phosphorylation. Both Ca2+ mobilization and cell migration are blocked in Mono Mac 1 cells by tyrphostin B42, a specific JAK2 kinase inhibitor. Within seconds of MCP-1 activation, JAK2 phosphorylates CCR2 at the Tyr139 position and promotes JAK2/STAT3 complex association to the receptor. This MCP-1-initiated phosphorylation and association to JAK2 is also observed in CCR2B-transfected HEK293 cells. In contrast, when a CCR2B Tyr139Phe mutant is expressed in HEK293 cells, it is not phosphorylated in tyrosine and triggers neither JAK2/STAT3 activation nor Ca2+ mobilization in response to the MCP-1. These results implicate the tyrosine kinase pathway in early chemokine signaling, suggesting a key role for this kinase in later events.

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